



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,015	04/19/2001	Yuki Tsuchida	KAM 18.602	3722

26304 7590 11/17/2003

KATTEN MUCHIN ZAVIS ROSENMAN  
575 MADISON AVENUE  
NEW YORK, NY 10022-2585

EXAMINER
----------

HANNON, THOMAS R

ART UNIT	PAPER NUMBER
----------	--------------

3682

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/838,015

Applicant(s)

TSUCHIDA ET AL.

Examiner

Thomas R. Hannon

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3682

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiblyi et al. The seal interface of Wiblyi possesses an interference fit in the radial direction between the peripheral edge of 40 and the part 32 of the inner race. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the interference within the claimed range because this would have been an obvious determination of optimum or workable ranges determinable through routine experimentation.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colanzi et al. The seal interface of Colanzi possesses an interference fit in the radial direction between the peripheral edge of 35 and the part 15 of the inner race. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the interference within the claimed range because this would have been an obvious determination of optimum or workable ranges determinable through routine experimentation.

Claims 1, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bugmann. The seal interface of Bugmann possesses an interference fit in the radial direction between the peripheral edge of 5 and the part 9 of the inner race. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the interference within the claimed range because this would have been an obvious determination of optimum or workable ranges determinable through routine experimentation.

Art Unit: 3682

Claims 1, 2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moorman et al. The seal interface of Moorman possesses an interference fit in the radial direction between the peripheral edge of 12 and the part 36 of the inner race. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the interference within the claimed range because this would have been an obvious determination of optimum or workable ranges determinable through routine experimentation.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiblyi et al., Colanzi et al., and Moorman et al., individually, as applied to claim 1 above, and further in view of Meyer (Germany 4,215,905). Meyer discloses a seal for a bearing subject to high angular or peripheral acceleration forces that is inclined at an angle to the bearing axis. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incline the bearing seals of the prior art to accommodate high angular or peripheral acceleration forces, as taught and suggested by Meyer.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bugmann as applied to claim 1 above, and further in view of Dreschmann et al. Dreschmann discloses a bearing seal in which a peripheral surface of the inner race is partly defined by a cylindrical surface in parallel to the center axis of the outer race, and the peripheral edges of the seal plate is defined by at least one seal lip that protrudes toward the cylindrical surface, and the at least one seal lip has a tip edge coming in sliding contact all the way around the cylindrical surface, the inner race is formed with shoulder sections between which the rolling bodies are held, and the cylindrical surface on which the tip edge of the seal lip coming in sliding contact is a peripheral surface of the shoulder sections, and the seal lip has a cross-section in a V-shape. It would have

Art Unit: 3682


been obvious to one of ordinary skill in the art at the time the invention was made to modify the inner sealing arrangement of Bugmann to include a V-shaped lip on a cylindrical shoulder of the inner race, because this is taught and suggested by Dreshmann as providing a seal arrangement of long life.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkuma et al. in view of Wiblyi et al, Colanzi et al., Bugmann, and Moorman et al., individually, as applied to claim 1 above. Ohkuma discloses a transmission as claimed, with the exception of the specific sealed bearing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sealed bearings of Ohkuma to include those taught by the prior art as each of the references teach using the sealed bearing s in an environment in adverse conditions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Hannon whose telephone number is (703) 308-2691. The examiner can normally be reached on Monday-Thursday (6:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

  
Thomas R. Hannon  
Primary Examiner  
Art Unit 3682

trh